## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/35050

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : H04J 15/00  US CL : 370/464  According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 370/464, 310, 252, 302, 315, 315, 332, 341, 343, 464			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	opropriate, of the relevant passages	Relevant to claim No.
A	US 5,214,788 A (DELAPERRIERE et al) 25 May 1993, Figure 2.		1-47
Α	US 4,509,206 A (CARPE et al) 02 April 1985, Abstract.		1-47
Α	US 4,723,302 A (FULMER et al) 02 February 1988, Abstract.		1-47
Further	documents are listed in the continuation of Box C.	See patent family annex.	
	pecial categories of cited documents:	"T" later document published after the inter	national filing date or priority
"A" document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" earlier ap	plication or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be considered when the document is taken alone	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination	
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the	art
	published prior to the international filing date but later than the late claimed	*&* document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report	
26 April 2004 (26.04.2004)			1-11-11
Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US  Commissioner for Patents P.O. Box 1450  Alexandria, Virginia 22313-1450		Authorized officer  (Wellington Chin  Telephone No. (703)308-1782	
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